CLAIMS

1. A spectroscopic probe, comprising:

an optical input port for receiving illuminating light;

a sampling port, for illuminating a sample with the illuminating light and collecting light scattered by the sample;

an optical output port for outputting scattered light received from the sampling port; and

a block of transparent material, having two opposed angled faces for reflection of light from one to the other within the block, light passing through the block between the optical input port, the sampling port and the optical output port;

wherein the light between the sampling port and one of the input and the output ports is reflected between said opposed angled faces of the block.

2. A spectroscopic probe according to claim 1, including optical fibres connected to the input and output ports, for delivering the illuminating light and receiving the scattered light respectively.

3. A spectroscopic probe according to claim 1 or claim 2, wherein at least one of said angled faces has a reflecting or partially reflecting coating.

4. A spectroscopic probe according to claim 3, wherein said coating on at least one of the angled faces is a dichroic filter coating which reflects light of a first wavelength (or range of wavelengths) and transmits light of a second wavelength (or range of wavelengths).

5. A spectroscopic probe according to claim 3 or claim 4, wherein the other of said angled faces has a reflecting or partially reflecting coating.

6. A spectroscopic probe according to any one of the preceding claims, wherein said ports comprise lenses.

7. A spectroscopic probe according to claim 6, wherein the lenses are GRIN lenses.

8. A component for a spectroscopic probe, comprising a block of transparent material, having two angled faces for reflection of light from one to the other within the block, for reflecting light between a sampling port and an input or output port of the spectroscopic probe.

9. A component according to claim 8, wherein at least one of said angled faces has a reflecting or partially reflecting coating.

10. A component according to claim 9, wherein said coating on at least one of the angled faces is a dichroic filter coating which reflects light of a first wavelength (or range of wavelengths) and transmits light of a second wavelength (or range of wavelengths).

11. A component according to claim 9 or claim 10, wherein the other of said angled faces has a reflecting or partially reflecting coating.

12. A method of making a component for a spectroscopic probe, the component comprising a block of transparent material, having at least one angled face for reflecting light;

the method comprising the steps of:

taking a sheet of transparent material, the sheet having a face; and

cutting said component from the sheet with a cut which is at an angle to said face, thereby producing said block with at least one angled face.

13. A method according to claim 12, wherein said face of the sheet is coated with a reflecting or partially reflecting coating, prior to the cutting step, whereby the angled face in the resulting component is provided with said coating.

14. A method according to claim 13, wherein the coating is a dichroic filter coating which reflects light of a first wavelength (or range of wavelengths) and transmits light of a second wavelength (or range of wavelengths).

15. A method according to claim 13 or claim 14, wherein an opposing face of the sheet is also coated with a reflecting or partially reflecting coating, prior to the cutting step, thereby producing a second angled face with a said coating in the resulting component, opposing the first-mentioned angled face.

16. A method according to any one of claims 12 to 15, including the step of removing a prism-shaped section from the angled face of the block.